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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/107,230	06/30/1998	SANJAY AIYAGARI	CISCP047	7733
22434	7590	12/16/2004	EXAMINER	
BEYER WEAVER & THOMAS LLP			HYUN, SOON D	
P.O. BOX 778			ART UNIT	
BERKELEY, CA 94704-0778			PAPER NUMBER	
			2663	

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/107,230

Applicant(s)

AIYAGARI ET AL.

Examiner

Soon D Hyun

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16, 19, and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16, 19, and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/06/2004 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-16, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior art (AAP) in view of (Vanden Heuvel et al (U.S. Patent No. 5,751,723).

Regarding claims 1, 8-11, 14, 19, and 20, AAP (Background of the Invention) discloses that a frame format of the standard HDSL is used for the SDSL technology, but the F/Z field of HDSL standard which reserved for use with standard T1 and E1 for loop identification and out-of-band signaling for the transmission of special alarm codes which are only applicable to T1 and E1 transmissions (Specification page 2, lines 28-32) is not used for extra payload transmission. AAP further discloses that when the frame format of HDSL standard is used for the SDSL technology which is well-known in the art, the data in the F/Z field is meaningless, because the SDSL does not interface with T1 or E1 technology (Specification page 2, line 37-page 3, line 1). Therefore, Modems used the SDSL have no need to insert the control data in the F/Z field when 97 bit of HDSL frame format is used, i.e., the F/Z field is an unused bit field for the SDSL. Vanden Heuvel et al (Vanden) discloses that unused or vacant bits are used for extra data transmission, see col. 1, line 26-col. 3, line 45. Those of skill in the art would have been motivated to incorporate the concept of Vanden into the SDSL of AAP to utilize the unused bit of F/Z field for extra bandwidth. Therefore, it would have obvious to one having ordinary skill in the art to employ the F/Z field in every frame for transmission of extra payload data with the SDSL modems.

Regarding claim 2, FIG. 2 (prior art) of the present application further discloses the steps of:

receiving the payload data as a data stream with the first SDSL modem (204);
generating a sequence of data frames in the HDSL frame format with the first SDSL modem; and
transmitting the sequence of data frames to the second SDSL modem (206).
Regarding claim 5, FIG. 2 (prior art) further comprising:
format from the first SDSL receiving the payload data as a sequence of data frames in the HDSL frame modem with the second SDSL modem; and
decomposing the sequence of data frames into a data stream, with the second SDSL modem.

Regarding claims 3, 4, 6, 7, 12, 13, 15, and 16, refer to the discussion for the claims 1, 11, and 14. It would have been obvious to one having ordinary skill in the art to use an F/Z register of the SDSL modem when the F/Z field is employed for transmission of extra payload data as discussed above to save extra circuitry for the transmission of extra payload data, because the extra payload data is inserted into the F/Z field without changing the frame size.

Response to Arguments

5. Applicant's arguments filed 04/20/2004 have been fully considered but they are not persuasive.

Examiner is noticed that all the independent claims are amended by adding the element "in every frame" and deleting the element "in a predetermined manner."

Applicant argues that the Vandon patent fails to teach or suggest a method of employing the field in every frame for transmission of a portion of the payload data. Examiner understands that Vandon does not add any additional data to the packet if the packet has no vacant or unused bits. However, the concept of Vandon for using unused or vacant bits for extra data transmission could be incorporated into the AAP.

Therefore, it would have been obvious to one having ordinary skill in the art to add any addition data in the F/Z field of every frame, because the F/Z field of every frame is unused.

For the reasons of discussed above, Examiner believes that the claim rejection is proper.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Soon D Hyun whose telephone number is 571-272-3121. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

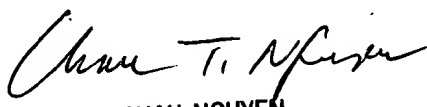
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


S. Hyun

12/08/2004


CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600